



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,169	11/13/2001	Richard L. Segar	169.12-0502	7782
36733	7590	10/05/2005	EXAMINER	
SEAGATE TECHNOLOGY LLC INTELLECTUAL PROPERTY DEPT./ MAIL STOP NRW-097 7801 COMPUTER AVENUE SOUTH BLOOMINGTON, MN 55435			MILLER, BRIAN E	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,169

Applicant(s)

SEGAR ET AL.

Examiner

Brian E. Miller

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-31 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-31 and 37-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2652

Claims 1-22, 32-36 have been canceled and 23-31, 37-42 are now pending.

Election/Restrictions

1. Applicant's election without traverse of claims 23-31, 37-42 in the reply filed on 1/10/05 is acknowledged.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the terms "device" and "holding member" as recited now in claims 37-42 lack proper antecedent basis within the original disclosure.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 23-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) claim 23 (and similarly for claim 27), the preamble recites "a slider comprising", however, also recites an inherent structural cooperation with a "gimbal" (see lines 2 and 7) which cooperation would render the claim indefinite, since a gimbal is not a part of a slider and vice-versa. As a result, the metes and bounds of the claim cannot be readily ascertained; (b) claim 24 (and similarly for claims 30-31) the language "the notch has a height with respect to the gimbal" (or "the slider bond pad has a height with respect to the gimbal") is

Art Unit: 2652

also indefinite since a gimbal is not a part of the slider; (c) claim 27, last line the word “the gimbal” lacks proper antecedent basis.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 37-42 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a slider bond pad for electrically connecting the slider to a gimbal, does not reasonably provide enablement for a bond pad for electrically connecting a device to a holding member, as set forth now in claims 37-42. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. More specifically, the scope of these claims would encompass additional art areas that is/are considered to not be described sufficiently in the specification and furthermore, would also open up an undue burden to the Examiner to even search such areas.

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

8. Claims 23, 27, 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Ainslie et al. (US 4,761,699). In so far as the claims are definite and understood, (With respect to claims

Art Unit: 2652

23 & 37) Ainslie et al disclose a slider device, as shown in at least FIGs. 4-7, including: a slider 16 having a leading edge and trailing edge 26, the trailing edge having a forward face; a slider bond pad 41/84 for electrically connecting the slider to a gimbal 40/flex on suspension (FOS) bond pad 47; a notch (unnumbered) adjacent the forward face of the slider below the slider bond pad 41 and on an edge of the slider (shown in FIGs. 4-5 for example); wherein the notch and the slider bond pad are considered to “provide compensation for potential misalignment between the slider and the gimbal,” since this intended use language is not considered to encompass any claimed structural difference over Ainslie et al.

(As per claims 23 & 37) Ainslie et al is further considered to show that the bond pad 41/84 has at least two layers, i.e., the terminal pad 41 and solder layer 84, since the solder “balls” are formed during fabrication of the slider assembly (see col. 7, lines 1-6); as per claim 27, Ainslie et al is considered to comprise a “pad extension” 41 adjacent the front side and a bond pad 84 adjacent the pad extension.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 2652

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 24-26, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainslie et al. For a description of Ainslie et al, see the rejection, *supra*.

As per claims 24-26, 40-42, with respect to the dimensional parameters of the notch/bond pad, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such dimensions in the course of routine engineering optimization/experimentation. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in these claims is considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Art Unit: 2652

12. Claims 28-31, 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainslie et al in view of Pihl (US 3,573,812).

With respect to claim 28-29 & 38-39, Ainslie et al remains silent as to the first layer (pad extension) 41 comprises nickel iron and the second layer (bond pad) comprises gold.

Pihl discloses an electrically conductive contact pad 82 which includes a nickel-iron alloy and a coating of gold. From this teaching of Pihl, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the Ni-Fe/gold laminate as taught by Pihl, onto the bonding pad/termination pad 41/84 of Ainslie et al. The motivation would have been: lacking any unobvious or unexpected results, as NiFe and gold are known to be a very good conductor(s) and contain corrosion-resistant properties, substituting one good conductor for another would have been readily realized by a skilled artisan.

With respect to claims 30-31, as they have similar limitations as to claims 24 & 25, they are rejected under the same basis (see paragraph 11).

Response to Amendment

13. Applicant's arguments filed 7/2/04 & 7/15/05 have been considered but are not persuasive.

A...The newly added claims, including the bonding pad "having at least two layers" is still considered to be encompassed by Ainslie et al, however, the specific layer composition, as now claimed, is considered to be taught with Ainslie et al in view of Pihl.

Art Unit: 2652

B...Applicant now asserts that "Ainslie et al do not disclose or suggest a slider bond pad having at least two layers or a slider bond pad having a pad extension adjacent to the front side and a bond pad adjacent the pad extension.

In response, the Examiner maintains that Ainslie et al does disclose/show such a configuration, as described in the rejection, supra. The terminal pad 41 along with solder 84 since the solder is formed during manufacturing process, is considered to encompass a layer of the bond pad configuration. Additionally, the NiFe and gold layer lamination is considered to be obvious with the teachings of the newly cited reference to Pihl (US 3,573,812).

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

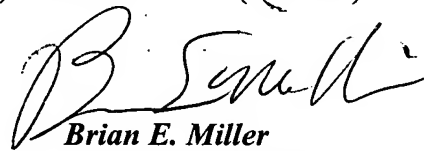
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2652

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 7:15am-4:45pm (and every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian E. Miller
Primary Examiner
Art Unit 2652

BEM
October 3, 2005